

Evaluation of the Applicability of the Flipped Classroom in Higher Education from a Multidisciplinary Approach

Daura Vega-Moreno*a, Margarita Fernández-Monroya, Margarita Esther Sánchez-Cuervo, Arminda García-Santana, Lucía Melían-Alzola, Isabel Sonia Granado-Suárez, Lucas Andrés Pérez-Martina and Margarita Mesa-Mendoza.
a University of Las Palmas de Gran Canaria (ULPGC), Campus Universitario de Tafira sn, 35017. Las Palmas de GC, Canary Islands, Spain.

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EXTENDED ABSTRACT

1. INTRODUCTION

The Flipped Classroom methodology is a pedagogical approach that reverses the traditional teaching model. Instead of receiving the lecture in class, students review theoretical content at home through short videos, readings, or other materials. Classroom time is then dedicated to practical, collaborative activities or problem-solving, with direct teacher support. This approach encourages more active and autonomous student participation, fostering deeper engagement with the material and improving learning outcomes, in which the teacher becomes a facilitator of the teaching-learning process rather than merely a transmitter of knowledge.

Flipped Classroom is a methodology that is primarily used at the university level, although it originated in secondary education. It was reported for the first time in 2007, when two high school teachers, Jonathan Bergmann and Aaron Sams, began recording video lectures for absent students [1]. The main idea of flipped classroom methodology is to reverse the location where the main tasks of the learning process take place: "The lesson at home and homework in class" [2].

Although the COVID-19 emergency has, in many cases, pushed teachers toward a hybrid teaching and learning model, often applying the Flipped Classroom methodology [3,4], the truth is that it had already gained relevance in the years prior to the pandemic. This was due to the need for educators to adapt the traditional teaching and learning system to the new generations [5].

Additionally, this flipped classroom methodology can be combined with others, such as gamification [6], allowing the combination of academic motivation with critical thinking, leading to very positive effects [7]. Gamifying involves using games in the teaching-learning process to develop skills and competencies (collaborative work, communication, problem-solving, critical thinking, etc.), as well as motivation. The gamified flipped classroom emerges from the fusion of these two active methodologies: on the one hand, the flipped classroom, and on the other, the use of games in the teaching and/or learning process [8].

The purpose of this paper is to discuss various flipped classroom experiences developed in Higher Education, which aim to promote active learning and encourage student motivation.

2. METHODOLOGY

The flipped classroom methodology has been applied at the same university to students from different degree programs and across various academic years (from the first to the final year). The traditional flipped classroom approach was implemented using videos, self-study materials, questionnaires, activities, and quizzes, among other tools. Additionally, in some cases, a double-flipped learning or gamified flipped classroom approach was used.

Several flipped classroom experiences have been designed and developed in various degree programs at the University XX (*Information that could reveal authorship*)XX, with the participation of a total of 840 students.

3. RESULTS

This methodology has been applied to students in scientific and technology science faculties, such as Marine Science, and in social science faculties as degree in Business Administration and Management and Law degree and Humanities, as Philology and Modern Languages degree.

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